African Painted Dogs
Activity Pack

The Lookout

Visiting The Lookout with your students is a great way to bring their curriculum work to life. The Lookout opened in spring 2024 and overlooks a group of African painted dogs. It is located in our African Village area which is at the beginning of the Drive Through Safari. The pack is made up of six brothers all born in the UK.

In addition to being able to view the dogs in their enclosure you can:

- Enter the field station and learn about painted dog behaviour and where in Africa they can be found
- Look at the skulls of all six of the carnivore species we have here at Longleat

Sit and watch a short video from carnivore keeper Caleb or dog ranger Jealous. (These videos are also on QR codes on the right)

Make your own dog pattern using the felt silhouettes on the wall

Compare the individual dog patterns

Have a look at all the information about the carnivores and then use the voting boxes to choose who you think is the best

Enthusiastic keepers are normally on hand to answer any questions you may have.

Contents

At the Lookout, things to do

Watch the dogs

Visit the field station

Find out about their markings and make your own dog coat pattern

Watch videos from our keepers and people who work in Africa

Compare the carnivores and cast your vote

Meet the dogs

Kuwinda

Look out for white socks on his front legs with three noticeable black spots on the right leg and a thick, black band at the base of his tail.

Tasilli

Look for a double black band on the tail, matching black dots on the front legs and a white patch just above the tail.

Meet the dogs

Kenya

Look out for a large white patch on the bottom of his back, a white band under his tail and a thick, black band halfway down his tail.

Ru

Look out for a darker coloured dog, with white only on his chest and socks, and a thin, black band on his tail.

Meet the dogs

Rafiy

Look for a darker muzzle, white socks, white collar and his tail is equal parts brown, black and white

Tan

Look out for a predominately tan coloured dog with not much white on him.

Species fact file

Species name: African painted dog

Scientific name: *Lycaon pictus*

Distribution: Scattered populations across 14 countries in Africa

Diet: Painted dogs are hunters and prey on a variety of medium-sized antelope. They are also capable of hunting much larger prey such as wildebeest, mainly targeting weak or injured individuals.

Habitat: Forests, savannah and grasslands but also some desert areas

Conservation Status: Endangered

Wild dogs can sprint after prey at speeds of up to 44 miles an hour.

With an 80% success rate, wild dogs are among Africa's most effective predators. Lions hunting success is only around 30%.

No two dogs have the same markings on their coat, in the same way as humans have different fingerprints.

A litter of African painted dogs can be up to 16 pups!

Habitats

African savannah ecosystem

African savannahs are warm, wide open spaces covered with several different types of grasses. Almost half of Africa is considered as savannah. Many large animals live here, including herbivores, such as giraffes, zebras, and elephants that feast on the grasses and trees. Carnivores also live there, including painted dogs, lions, hyenas and leopards.

The savannah ecosystem is often described as an area of grassland with dispersed trees or clusters of trees. The lack of water makes it a difficult place for tall plants such as trees to grow. Grasses and trees that grow in the savannah have adapted to life with little water and hot temperatures.

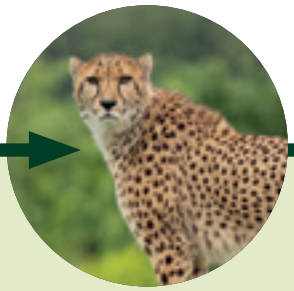
Habitats

African savannah ecosystem

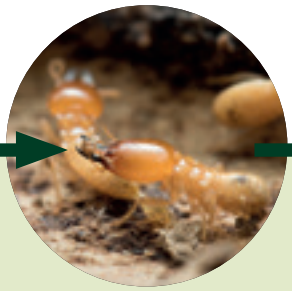
The savannah ecosystem is marked by its sparse vegetation, consisting of few trees and shrubs amid vast grasslands, due to the low rainfall and dry climate. In contrast, it supports a rich diversity of wildlife, serving as home to various species of carnivores, herbivores, omnivores, and scavengers.

Producers:
Acacia tree, jackal berry tree, star grass, red oat grass.

Primary Consumers:
Impala, zebra, warthog, hare, elephant, giraffe.



Secondary consumers:
Cheetah, lion, painted dog, hyena, vulture, jackal.



Decomposers:
Termite, bacteria, fungi.

Habitats

African forest ecosystem

A forest is a continuous group of trees whose crowns interlock and cast enough shade to prevent grasses from growing. Africa's various forest ecosystems include tropical rainforests; thick, high-branched forests that wind through savannah woodlands as well as along rivers and groves of tiny dwarf trees that grow high on mist-wrapped peaks.

The forests' boundaries are mainly established by water and human activity. Rainfall is the most important factor in determining what type of forest will develop and how far it will extend — although groundwater from rivers or swamps can also support forests.

Habitats

African forest ecosystem

The threatened black rhinoceros and African bush elephant — some of the most endangered megafauna in Africa — live amongst the forests in the Rift Valley of East Africa. This Valley was created by the cracking of the African plate system and the volcanoes typical of this region — including Mount Kilimanjaro, Mount Kenya, and Mount Elgon. This region also hosts a population of bongo, living in the Abadere Mountains, which is the most eastern distribution of this rainforest species in Africa.

Producers:
Banana trees, liana vines, kapok tree.

Primary Consumers:
Okapi, colobus monkeys, gorillas, dik-diks, forest elephant.

Secondary consumers:
Leopard, painted dog, eagles, marabou storks, spotted hyena.

Decomposers:
Giant millipede, bacteria and fungi.

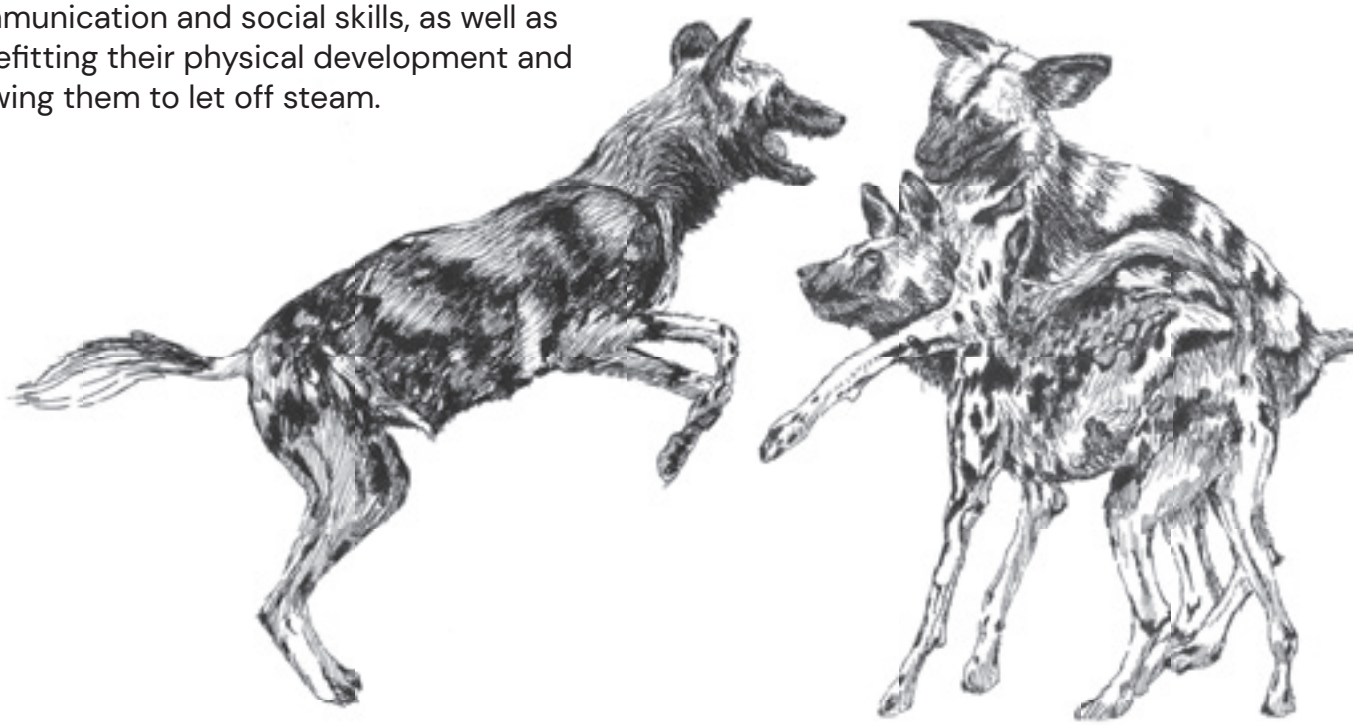
Painted dog behaviours

Resting

African painted dogs spend a large portion of the daytime sleeping or resting together as a pack, usually in the shade or near water. However, they still remain alert and you can sometimes see their ears moving listening for any potential threats.

Play

Like many animals, painted dogs will play with each other. This gives the dogs opportunities to learn from each other. Through play they may develop their communication and social skills, as well as benefitting their physical development and allowing them to let off steam.



Food begging

African painted dogs do not fight over food instead they beg to tell others they want to eat. They do this by nibbling and licking the lips and faces of other dogs whilst lowering their body and raising their tail. This would occur in the wild when a pack comes back from a hunt and returns to meet other members who stayed behind to guard puppies.

Greeting

Greetings are important in painted dog society. Greeting ceremonies occur when the pack wakes up and involve each dog seeking out the other members of the pack with their head lowered, back arched and mouth slightly open. It can be a noisy time with yelps and squeals. Collectively the dogs will run together, leap over and dive under each other.

Scent marking

Scent marking is key to communicating certain information. It is used by painted dogs to show an area is occupied as a form of territorial reinforcement. Neighbouring packs may both scent at a communal area. Research published in January 2024, indicated a difference between the behaviour of dominant females and males. With females seeming to scent mark to confirm a territory but males also marking in mate defence, urinating on top of that left by the female.

Sneeze vote

The 'sneeze vote' has been identified as a way that painted dogs can make collective decisions. Research suggested that painted dogs sneeze to show their commitment to a hunt. Depending on the rank of the initial dog that sneezes, a certain number of additional sneezes appear to be required for the pack to rally and depart.

Supporting African painted dogs in the wild

How many wild dogs are left?

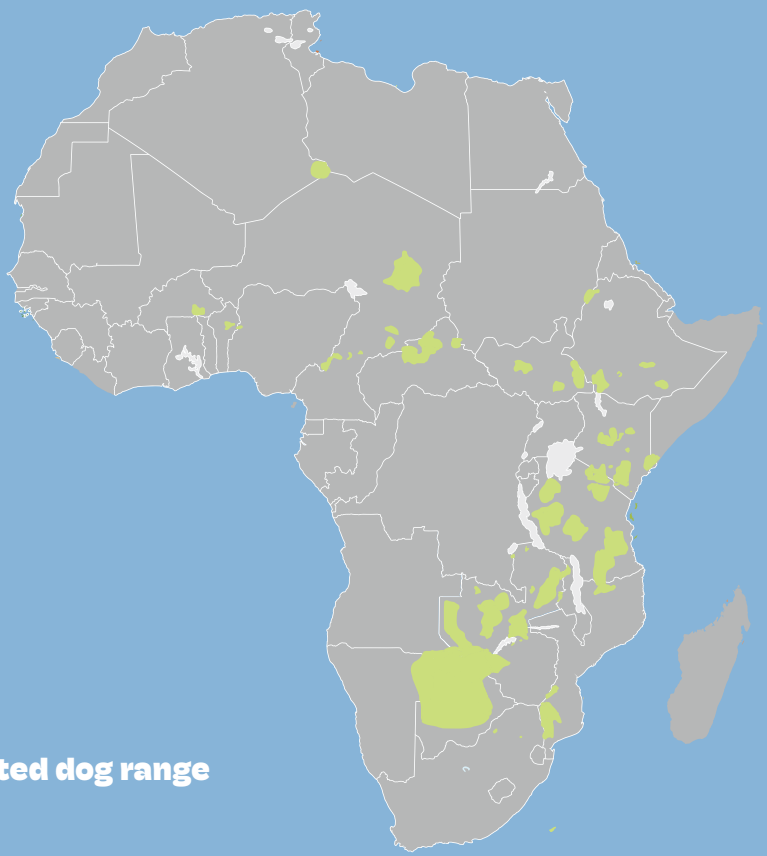
Today, fewer than 7,000 African painted dogs survive in the wild, and only 1,500 of these are adults. It is thought that just 700 packs of wild painted dogs remain, scattered across the entire continent. African painted dogs are officially classified as Endangered on the IUCN Red List. Scan the QR code on the left for more information.

Our conservation partner TUSK

We fund African painted dog conservation through TUSK. Find out more about them and their work by scanning the QR code on the left.

They support several projects that work with local communities that live alongside painted dogs and other carnivore species.

Distribution of African painted dogs



African painted dog range

Before and after your visit

Skull graphics

Replica skulls are on display in The Lookout. There are six and each represents a carnivore we have in our Safari Drive Through. They are used as props in our education workshop. Graphics highlighting different skull features are included in this pack. Ahead of your visit you can share these graphics with your class, helping them focus on the similarities and differences generally. They can be used to highlight adaptations to habitat and for feeding. Comparison can also be made to our own skulls and teeth functions. Equally these graphics may be used following your visit as reinforcement.

The graphics in this pack are also displayed next to the skulls on site so can be used by adult leaders and older students to recognise these features when you are at Longleat.

African habitats

Africa has a broad range of habitats, in this pack we have provided more information on savannah and forest ecosystems. You can use these to explore habitats and feeding relationships.

African schools teaching resource

This resource was produced by our African conservation partner TUSK. PACE is one of the first projects that Longleat supported. The pack has lots of background information in it about African painted dogs. This may help increase your knowledge or be used by older students for their own research. A good discussion question for students is 'Why is raising awareness about painted dogs an important conservation tool, particularly to those people who live alongside them?'

Animal behaviour

Included in this pack and at The Lookout are illustrations and descriptions of some commonly shown behaviours. Ask students to compare these to the behaviour of other animals they are familiar with. Consider how we know about the behaviour of African painted dogs? What is the role of researchers/ rangers in the field? Compare their ideas with the simple checklist included in this pack.

Adaptation sheets

To help reinforce what students have learnt about the adaptations of Longleat's safari carnivores we have provided sheets that the students can annotate themselves or use the labels provided.

Art inspiration

The unique coat patterns of African painted dogs can be subject for numerous art or design projects. Exploring shapes and colours; random shapes, regular 2-D shapes, geometric designs, designs inspired by different artists and different colour pallets.

Colouring sheet options

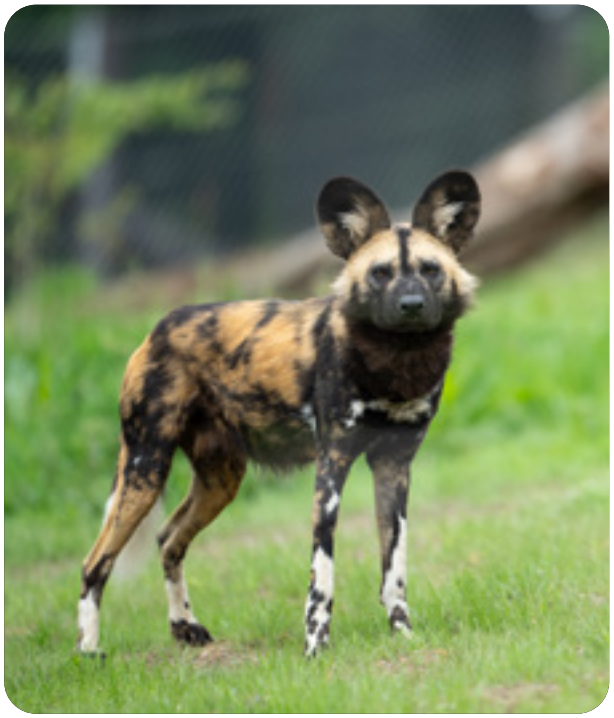
Two colouring sheets are included in this pack one with and one without coat markings. The first can be used as a simple colouring sheet helping children familiarise themselves with what an African painted dog is. The second can be used to allow them to design their own coat pattern.

Human wildlife conflict

This is a major threat to painted dogs. Ask students to research the fantastic work that has been done to tackle the causes of this. You can use the information in this pack about the Ruaha Carnivore Project and boma fencing as well as the video about Jealous, the Painted Dog Conservation ranger as starting points. Encourage students to consider the challenges faced by both the people and the wildlife. Can they think of other ideas that might work to reduce conflict?

What examples of human/wildlife conflict do we have in the UK? Students can debate the issues representing different interested parties.

There are a series of picture books that explore positive conservation solutions through characters that live alongside wildlife. Details of these can be found on the QR code.



Carnivore comparison

Following a visit there are many ways that students can use the knowledge they learnt and if required further research. They can create a poster, fact files, and present to others. One activity that works well is to divide up students into teams each representing a different carnivore. They then champion their carnivore as the top predator. This is an extension of the voting activity you can do at Longleat.

Research Sheet

This sheet can be used to focus students research to make a more detailed comparison of different carnivores and their hunting abilities. It could also be used at The Lookout to record information whilst on a visit.

Endangered Species

African painted dogs are classified as 'endangered' by the IUCN. What does this mean? Investigate the different levels of conservation status.

Resources

This section includes;

- *Template carnivore adaptation sheets*
- *Adaptation labels*
- *Template research sheet*
- *Carnivore skull graphics*
- *Colouring sheets*

African painted dog Adaptations

Amur tiger Adaptations

African lion Adaptations

Cheetah Adaptations

Spotted hyena Adaptations

European wolf Adaptations

Adaptation labels

African painted dog

They have long legs and less toes than other canids, means they are able to run much faster.

Their large, round ears have a double purpose. They have excellent hearing for hunting prey, and their large ears help cool the dog off in the hot African climate.

The bones on their lower front legs are fused together to prevent breaking their legs while running.

They have multicolored coats that are asymmetrical which allows them to blend in with their surroundings making it easier to hide from their prey.

The premolars have evolved to be more blade-like or carnassial. Carnassial meaning adapted for shearing flesh, well-suited to taking down prey.

Amur Tiger

The striping helps break up their body shape, making them difficult to see by their prey.

They are the largest species of big cat on the planet, with male tigers larger than females, weighing up to 270kg!

Their saliva is antiseptic, which comes in handy when a tiger cleans its wounds.

They are strong swimmers and often bathe in ponds, lakes, and rivers to keep cool in the heat of the day.

They have great hearing. They can even hear infrasound, which are sound waves below the range of what we can hear (around 20 hertz).

Adaptation labels

Spotted hyena

Their skulls are large and heavy, with short facial portions, while their necks are short and thick.

Their calloused feet, with large, blunt, non-retractable claws, are adapted for running and making sharp turns when chasing prey.

The spotted hyena is known as the laughing hyena because their loud, high-pitched noise sounds like hysterical human laughter.

Fur colour varies and changes with age. It is usually a pale greyish-brown or yellowish-grey and has an irregular pattern of spots.

They hunt by running down their prey and grabbing it with their mouths, like dogs. However, they groom themselves often and scent-mark their territory like cats.

Cheetah

A cheetah's body is made for speed. Its small head, flat ribcage, and slim build minimize air resistance.

Cheetahs have long, muscular tails that aid in balance and steering during rapid sprints.

Their specialized paw pads and unretractable claws provide extra traction, helping them maintain control while chasing prey.

They have long, powerful legs filled with fast-twitch muscle fibers. These fibers provide explosive acceleration and rapid top speeds.

Their spine is more flexible than that of other big cats. This allows it to stretch its body while running, maximizing stride length.

Adaptation labels

African lion

A lion’s sense of smell, although less important than its sight or hearing, helps when hunting, finding kills of other predators and identifying other lions.

A lion's tongue is covered in hundreds of tiny spines. These spines are used for grooming and for licking feathers and fur off prey and meat off bones!

A lions’ night vision is highly developed. A white circle below the eye reflects light also helping to see at night or early morning when lions tend to hunt.

Large manes make males look bigger which may intimidate rivals, attract females and protect their throat from another lion’s attack.

Soft foot pads and retractable claws allow lions to move quietly when approaching prey.

European wolf

They have long legs that are well adapted to running, allowing them to move fast and travel far in search of food.

The wolf's sense of smell is 100 times better than that of a human. Their hearing so great that it is 20 times better than the best human ears.

They have five toes on the front and four toes on the back feet. Their claws and fleshy pads give the ability to grip on slippery surfaces.

A wolf's jaw can clamp down hard. Their canine teeth can tear into flesh and their back teeth can crush bones.

Research Sheet

Make notes in each of these boxes and add an image.
How does this carnivore compare to others?

Name of carnivore

Habitat

Prey

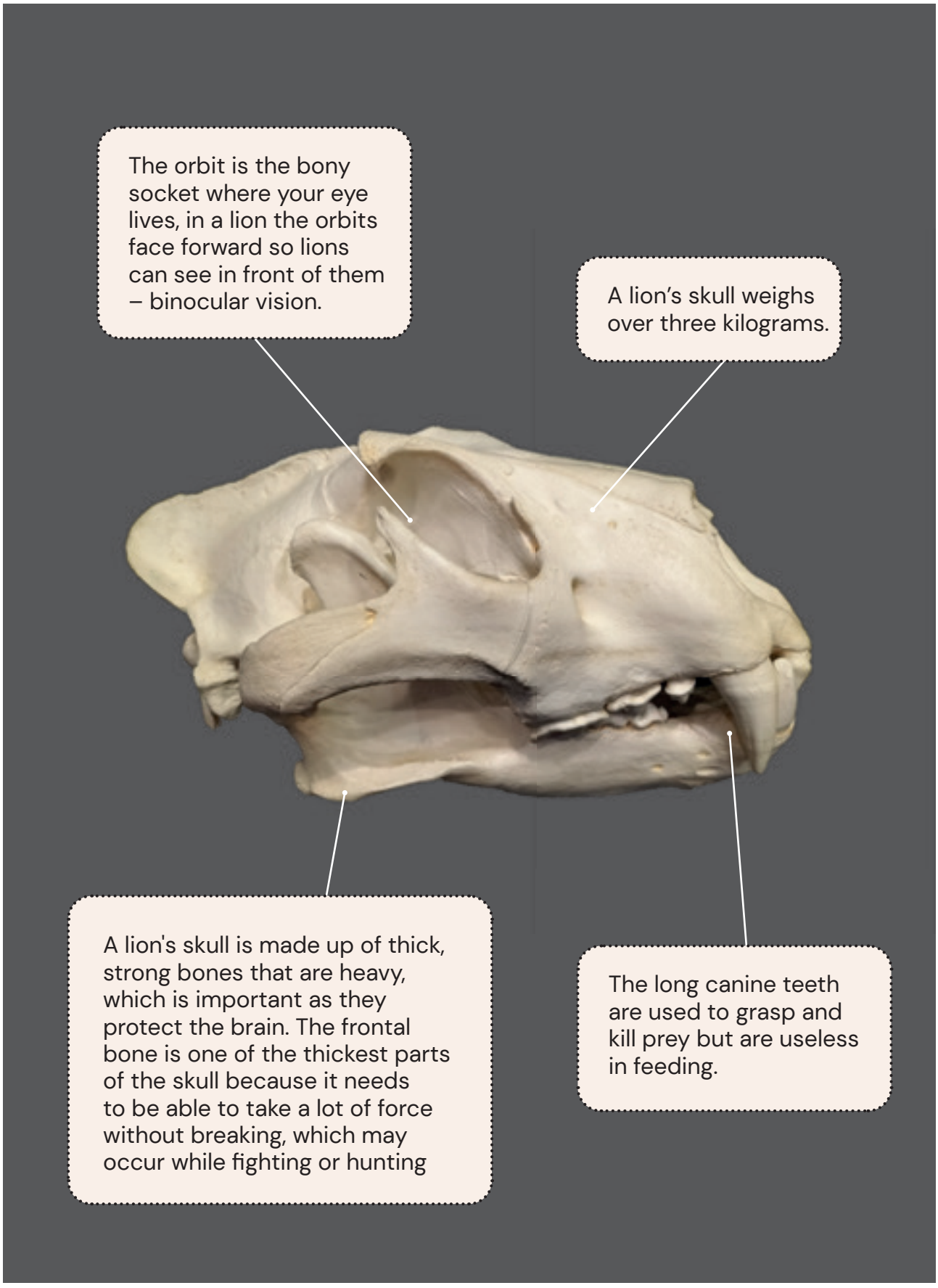
Name of carnivore

Speed *(top speed/ability to keep up speed)*

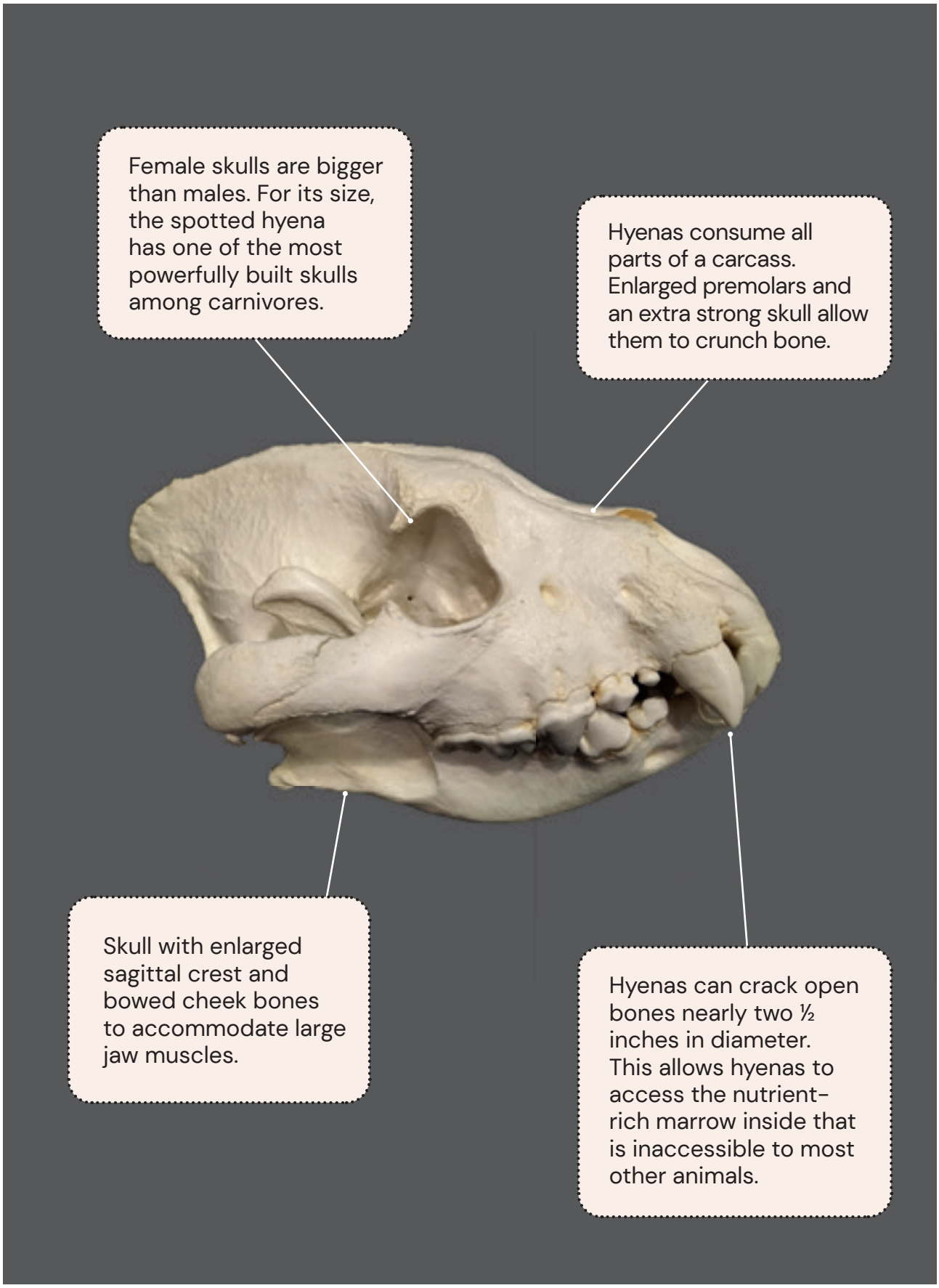
Hunting strategy

Additional notes

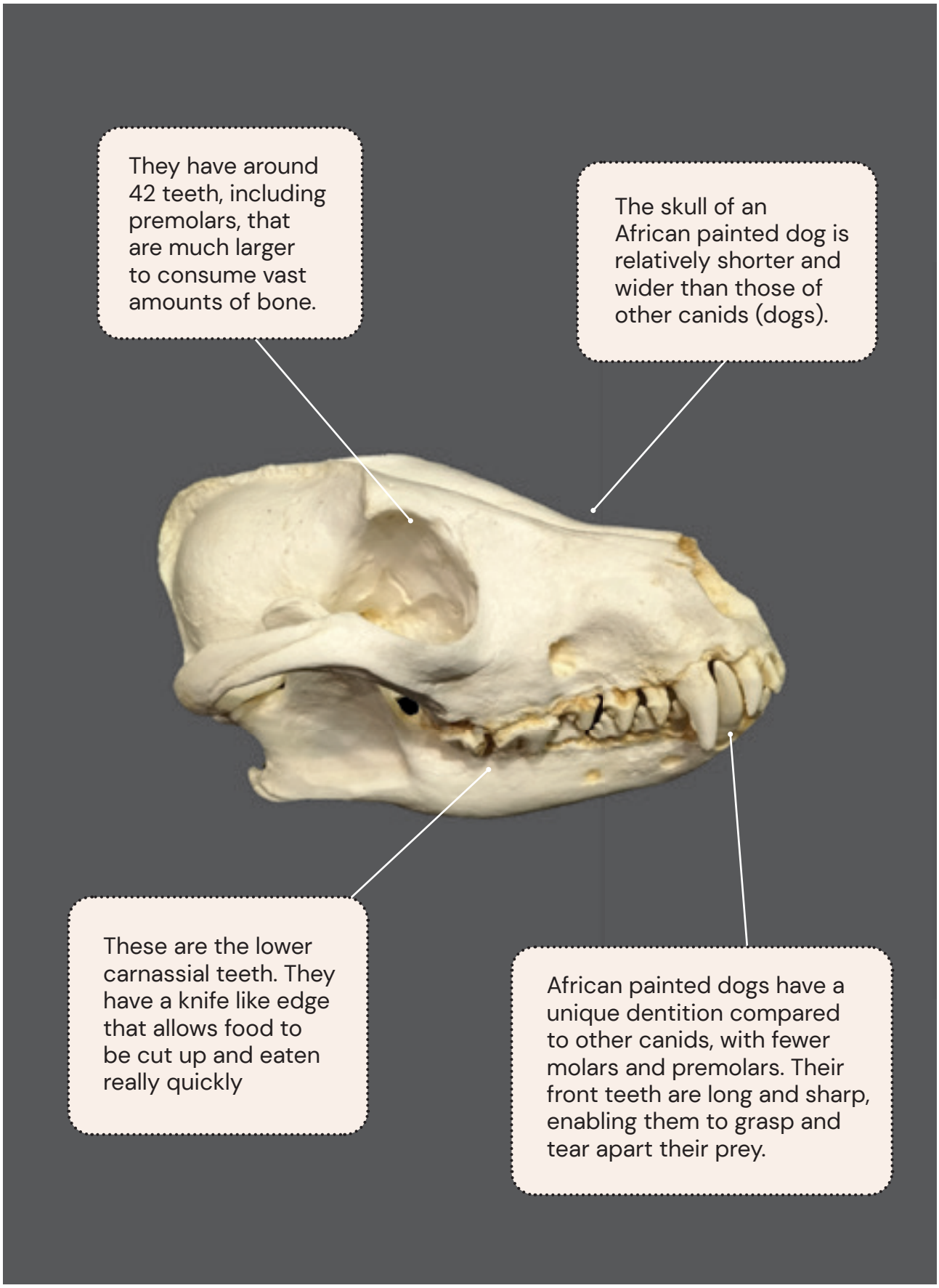
Lion’s skull


The orbit is the bony socket where your eye lives, in a lion the orbits face forward so lions can see in front of them – binocular vision.
A lion’s skull weighs over three kilograms.
A lion's skull is made up of thick, strong bones that are heavy, which is important as they protect the brain. The frontal bone is one of the thickest parts of the skull because it needs to be able to take a lot of force without breaking, which may occur while fighting or hunting
The long canine teeth are used to grasp and kill prey but are useless in feeding.

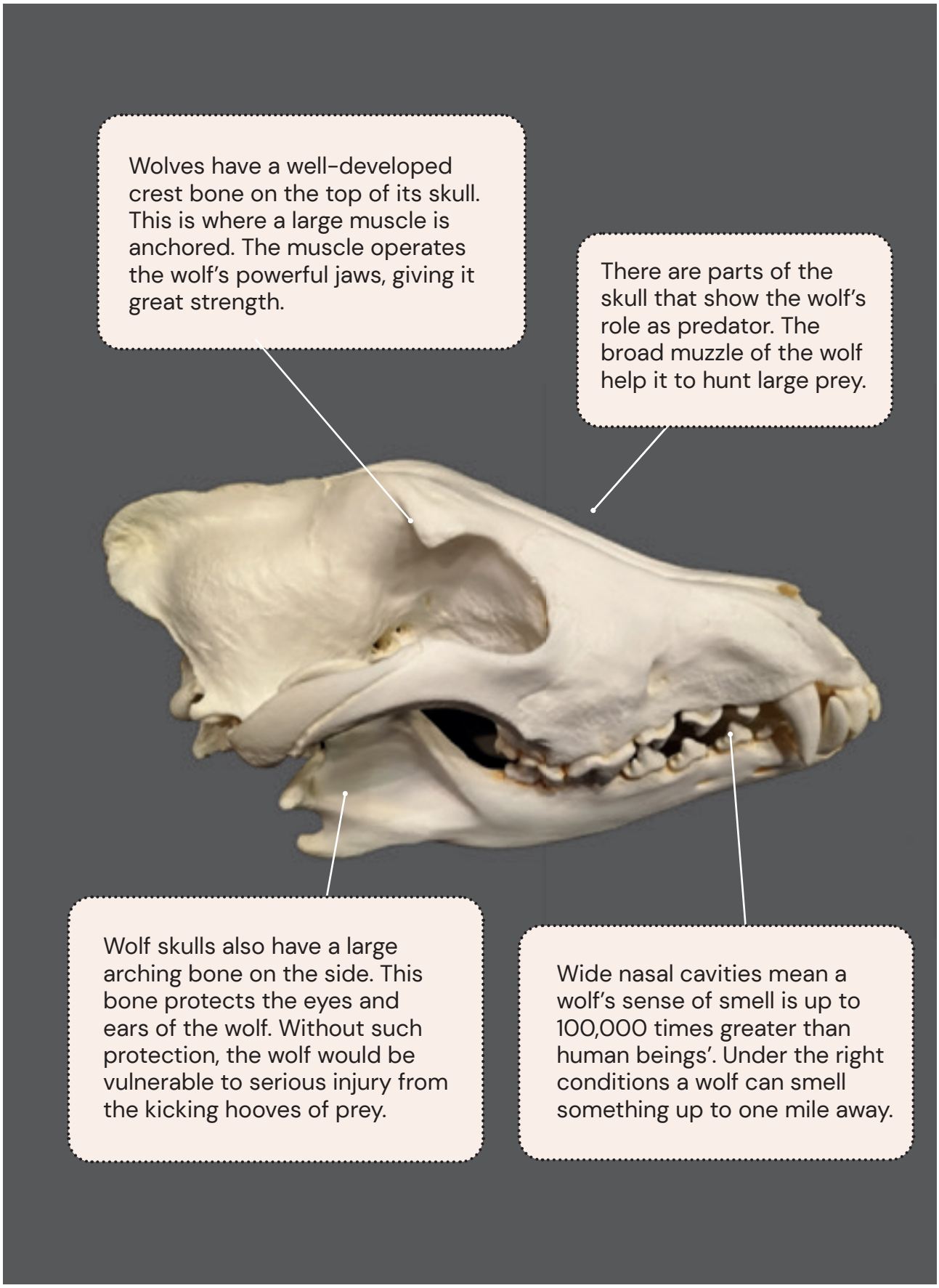
Hyena's skull



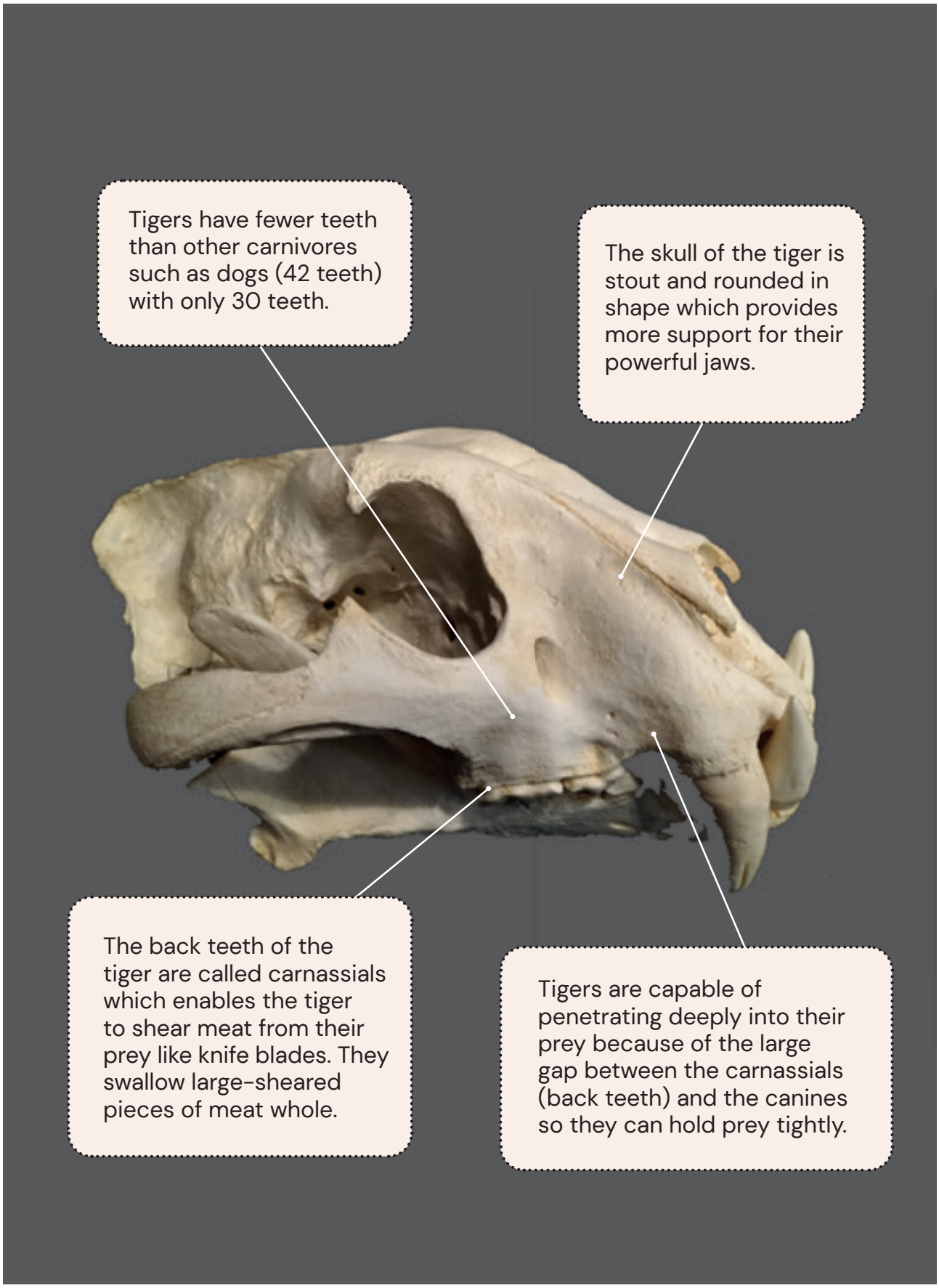
African painted dog skull



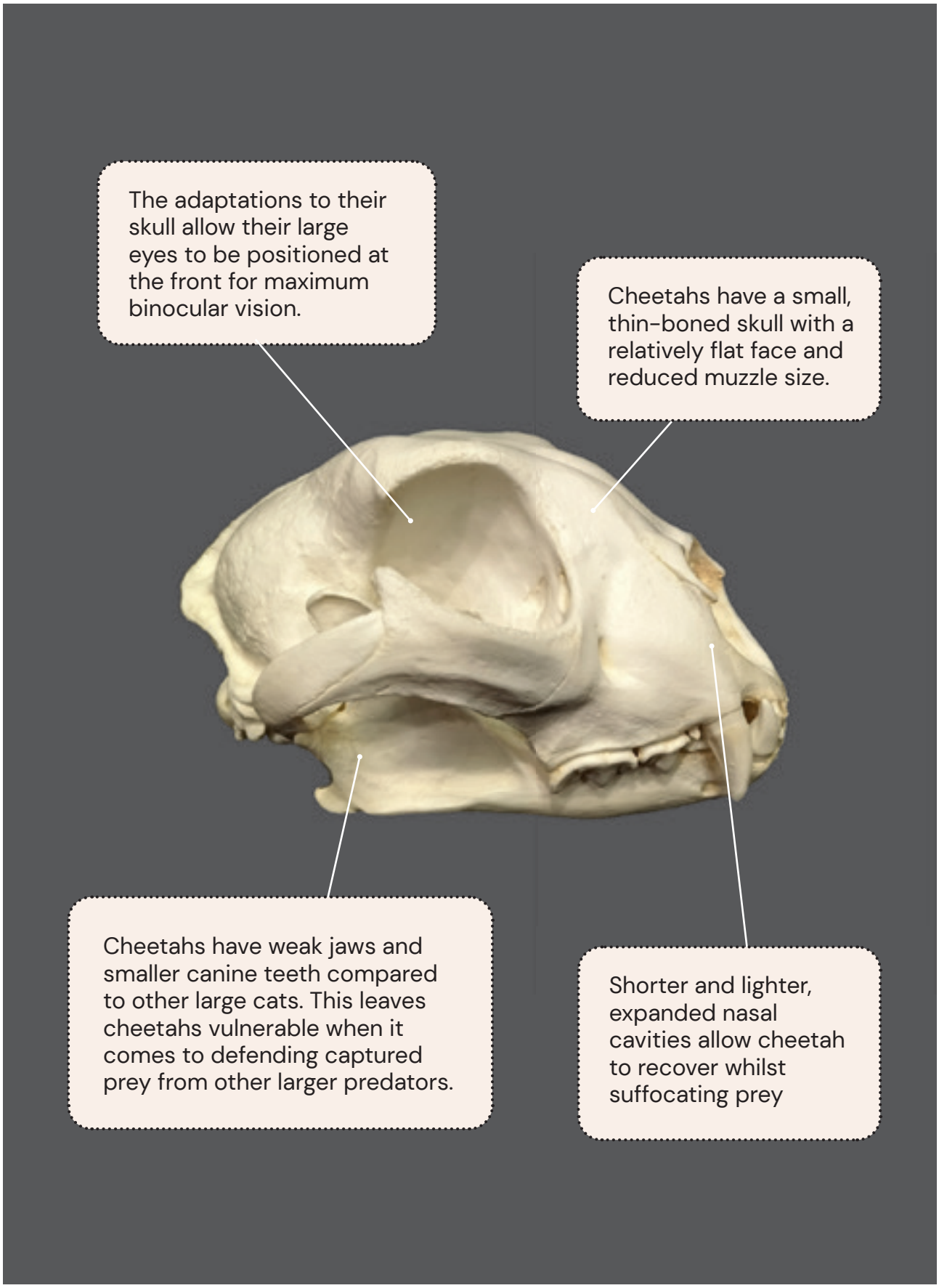
Wolf skull

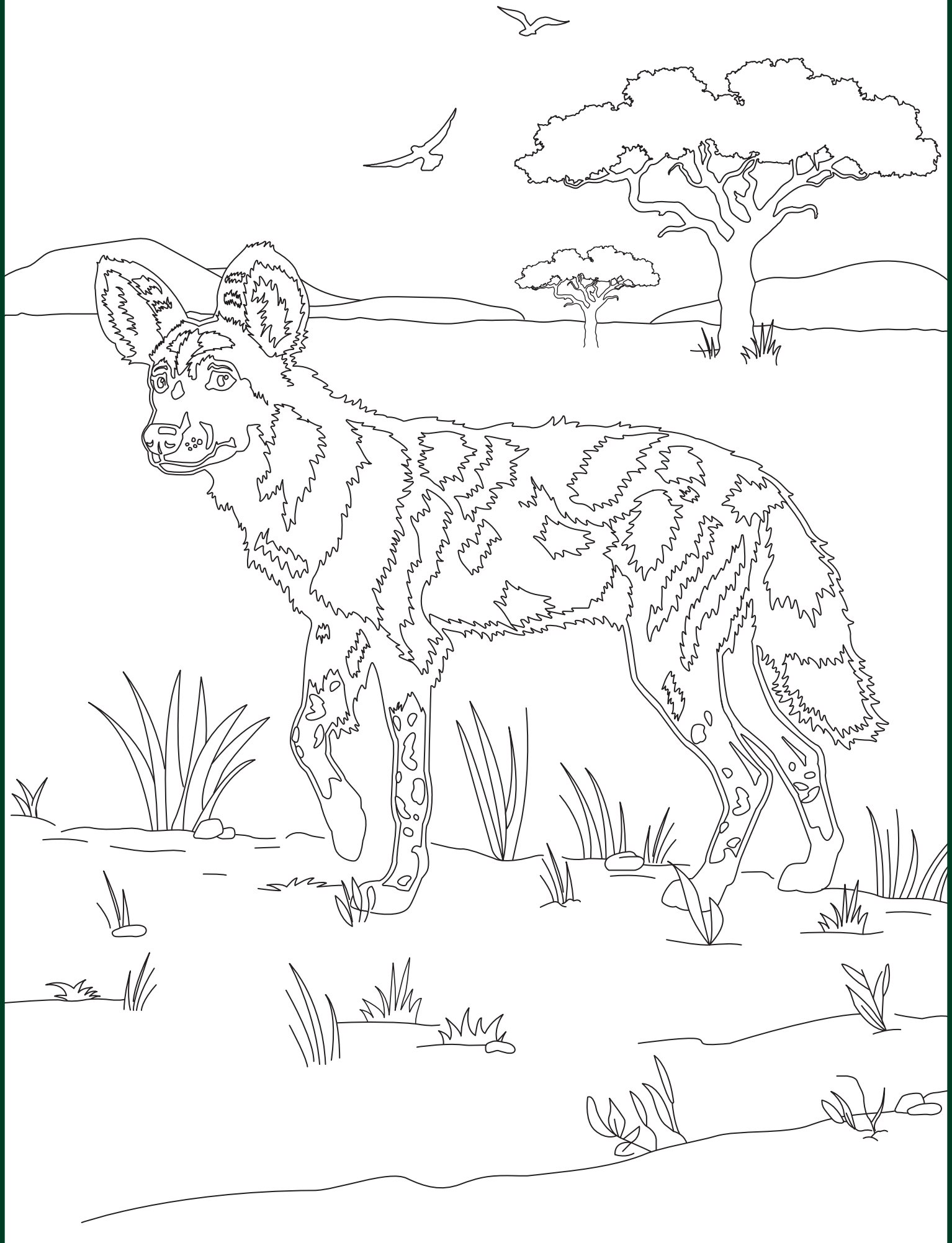

Wolves have a well-developed crest bone on the top of its skull. This is where a large muscle is anchored. The muscle operates the wolf's powerful jaws, giving it great strength.
There are parts of the skull that show the wolf's role as predator. The broad muzzle of the wolf help it to hunt large prey.
Wolf skulls also have a large arching bone on the side. This bone protects the eyes and ears of the wolf. Without such protection, the wolf would be vulnerable to serious injury from the kicking hooves of prey.
Wide nasal cavities mean a wolf's sense of smell is up to 100,000 times greater than human beings'. Under the right conditions a wolf can smell something up to one mile away.

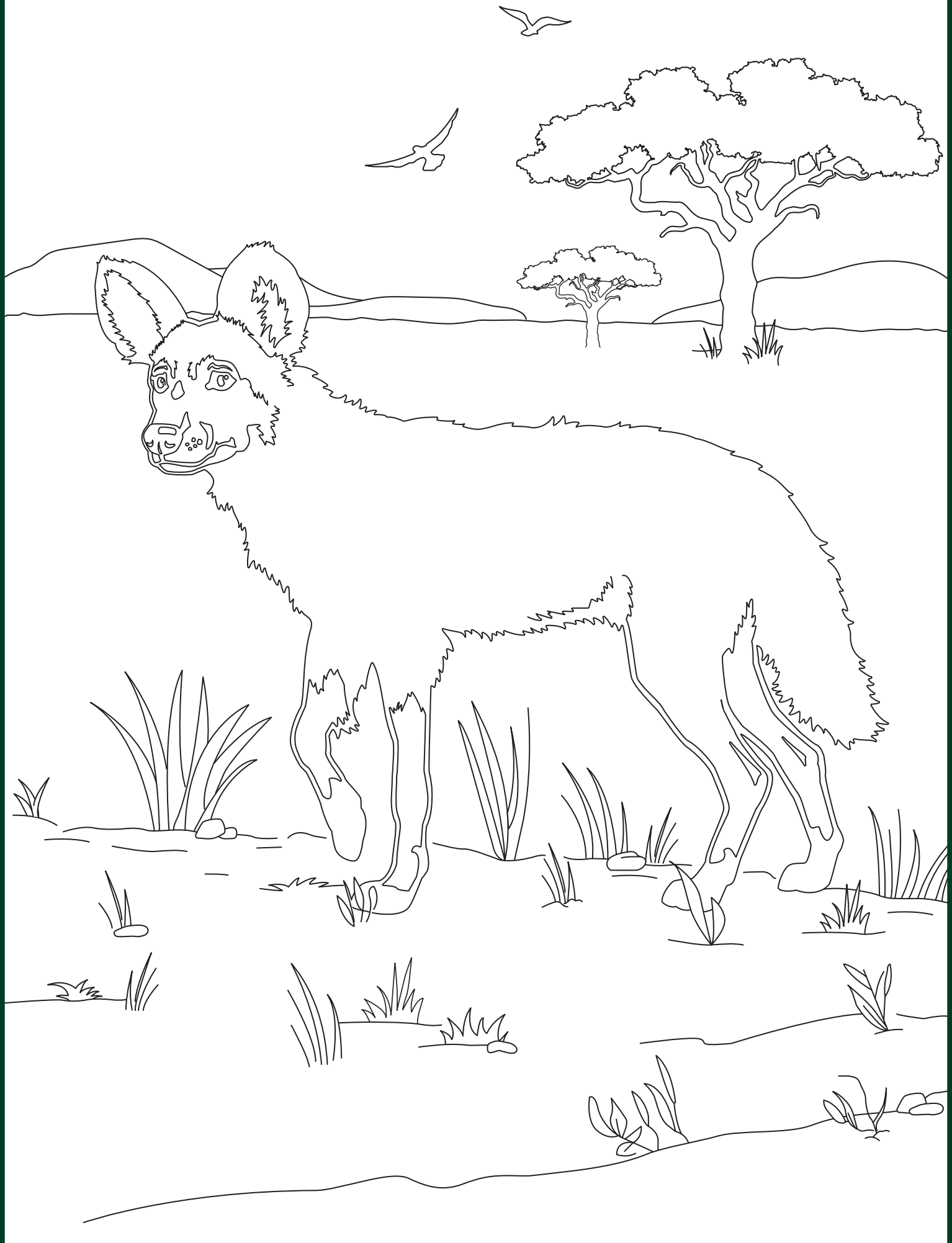
Amur tiger skull



Cheetah skull







Ranger checklist

- [ ] Locate animals
- [ ] Check camera traps
- [ ] Watch for behaviours
- [ ] Call for supplies
- [ ] Report to HQ using radio
- [ ] Check for weather damage
- [ ] Reset camera traps

Notes:

Ruaha Carnivore Project

Protecting African painted dogs and their habitat

The Ruaha Carnivore Project (RCP) was established to work with local communities to explore the costs of living alongside the carnivores and work to reduce these and engage local people and communities in carnivore conservation. RCP is now incorporated with the work of Lion Landscapes.

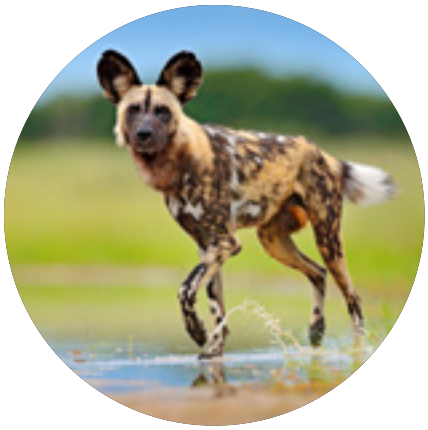
To tackle the human-wildlife conflict, the RCP started the community benefit programmes which were created to reward the local villages surrounding Ruaha. It included better healthcare and veterinary medicine along with:

- Predator-proof enclosures for village livestock
- Guard dogs for village livestock
- Porridge and breakfast for village children

Alongside the benefits programme, the organisation were trying to expand monitoring and the camera trapping study of the lands unfortunately, many of their cameras were being destroyed or stolen.

The RCP developed the community camera-trapping programme, where instead of the project setting out camera-traps on village land they train and employ the local villagers to do it.

The animals they capture on camera have different point values - the more points scored, the more benefits the community can gain. African painted dogs score the highest at 20,000 points each time they are spotted. This is a significant part of reducing human-wildlife conflict.



The projects successes

The programme is providing invaluable data on wildlife populations on village land. It is generating a real conservation impact for the first time as communities are recognising the value of wildlife on their land. The project has seen success, with an 80% reduction in carnivore killings.

Predator-proof enclosures for village livestock, otherwise called boma fencing, gives the villagers enough time to warn predators off before any livestock is taken,

Change in tradition

Through the work of these programmes, whole villages and communities are implementing bans against both lion and elephant hunting. This has long been tradition for the men in the villages.

What is boma fencing?

(bo:ma) NOUN (in Central and Eastern Africa) an enclosure or fence of thorn bush, set up to protect a camp, herd of animals etc.

A boma is traditionally known throughout Africa as an enclosure used to secure and protect people's livestock. But they can also be built to encompass a whole village! A boma can be used for wildlife conservation too – and in fact has many different purposes.

It is typically made of a circular or rectangular fence of branches, sticks, or thorns, with a gate or opening for people to enter and exit. Some bomas may have additional features such as a thatched roof or a central area for cooking or sleeping.

The construction and design of a Boma is important when using for wildlife conservation. For painted dogs, you have to dig a trench on the inside perimeter and lay wire mesh down to stop the dogs digging out. For cheetahs, the boma fence needs to be high enough so the don't jump over. These are just a few examples why the design is different for different jobs.

What is a boma used for in wildlife conservation?

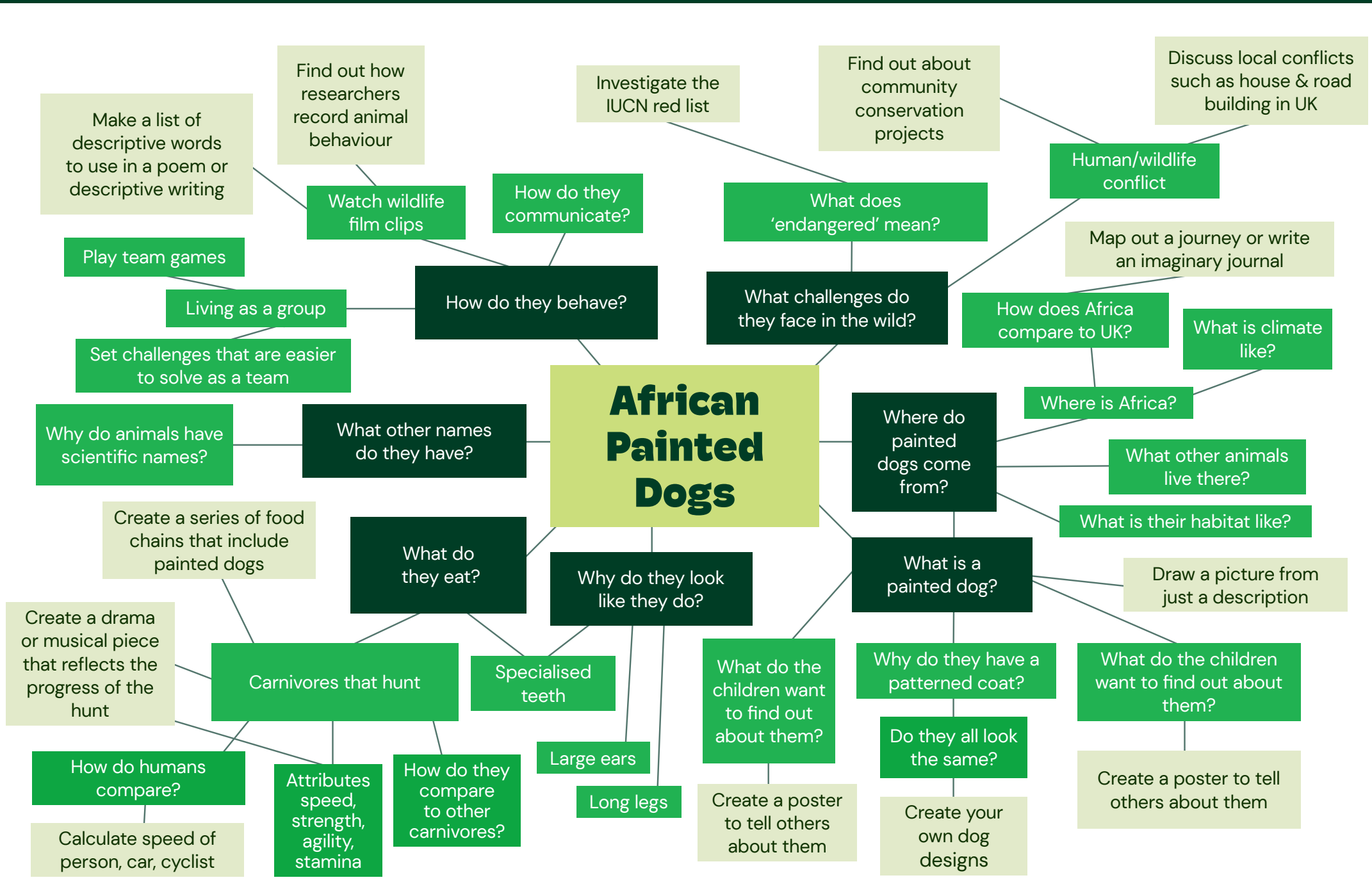
Wildlife introduction – used to settle an animal into its new home.

Sick/injured/orphaned animals – in some cases humans need to help an animal back to health.

A holding facility – If they have an animal that needs to be relocated to another reserve, a boma can be used as a holding facility until future plans for that animal are in order.

Bonding animals – in the context of painted dogs and managing their populations, parts of the boma can be sectioned off and used to bond unrelated male and female groups to establish new painted dog packs.

Planning a cross curricular project on African painted dogs



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